

FIGURE 1A

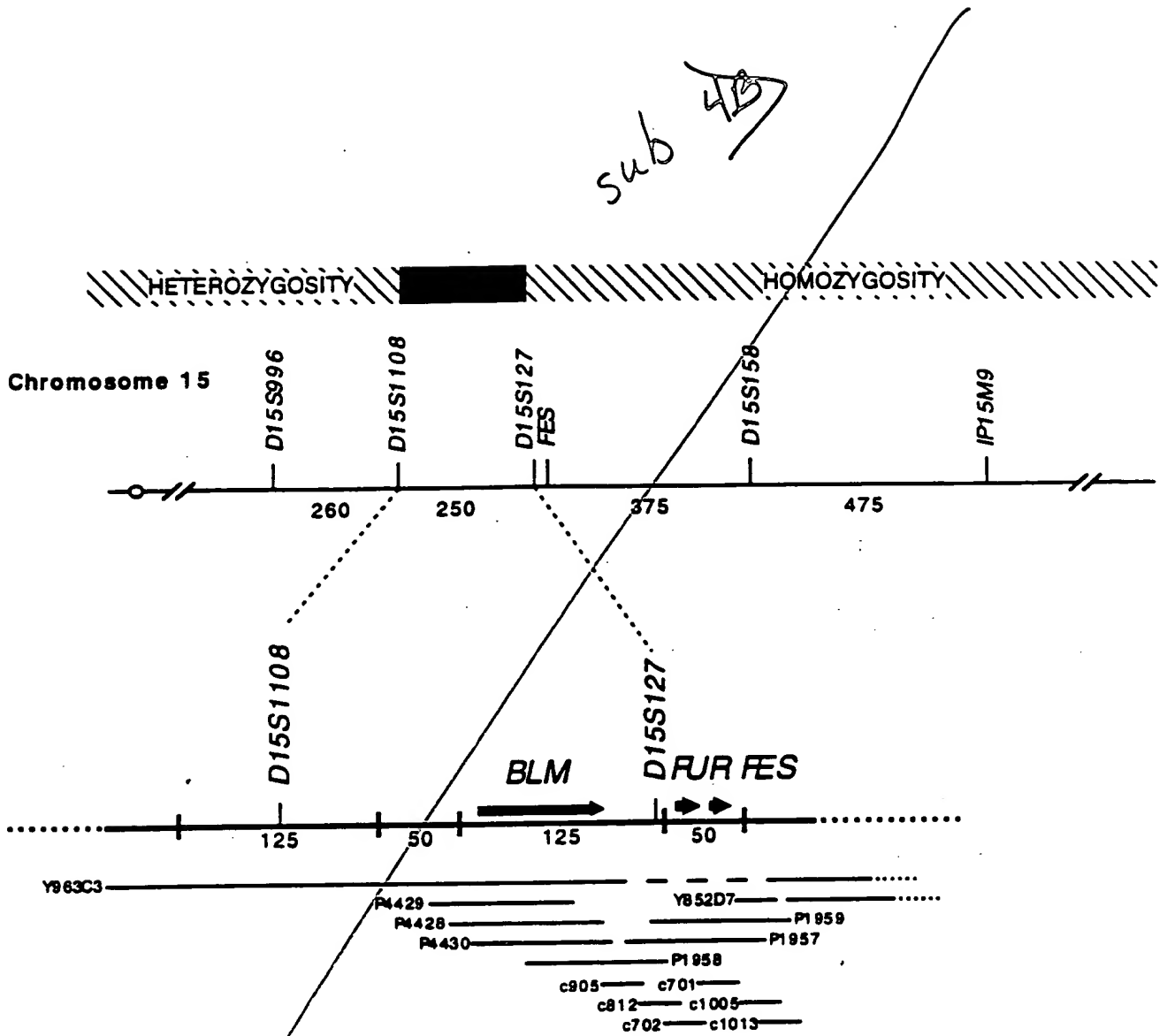


FIGURE 1B

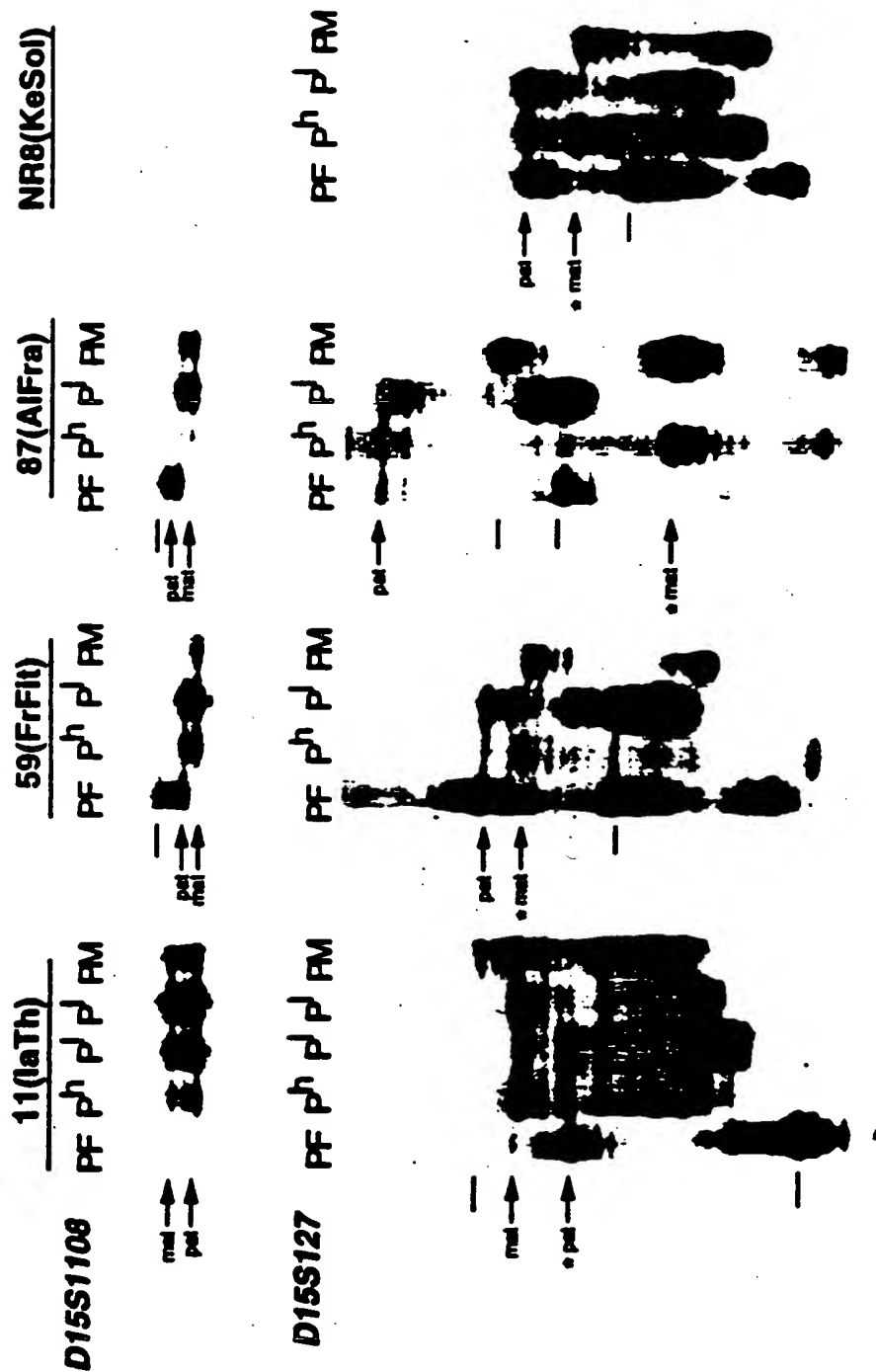


FIGURE 2

gcgcggcggcgtggttgcgggcgcaggttggatcctggttccgctccgctaggagctcgcaggattatggcct 80
 M A
 GCTGTTCTCTCAAAATAATCTACAGGAGCACTAGAACGTCAGCCAGAACACTTAATAATAAATTAAGTCTTTCAAA 160
 3 A V P Q N N L Q E Q L E R H S A R T L N N K L S L S K
 ACCAAAAATTTTCAGGTTTCACTTTTAAAAAGAAAACATCTTCAGATAACAATGTATCTGTAACCTAATGTGTCTAGTACAA 240
 30 P K F S G F T F K K K T S S D N N V S V T N V S V A
 AAACACCTGTATTAAGAAATAAGATGTTAATGTTACCGAAGACTTTTCTCTCAGTGAACCTCTACCCAACACCACAAAT 320
 56 K T P V L R N K D V N V T E D F S F S E P L P N T T N
 CAGCAAGGGTCAAGGACTTCTTTAAAAATGCTCCAGCAGGACAGGAAACACAGAGAGGTGGATCAAAATCATTATTGCC 400
 83 Q Q R V K D F F K N A P A G Q E T Q R G G S K S L L P
 AGATTTCCTGACACTCCGAAGGAAGTTGTATGCACTACCCAAAACACCAACTGTAAAGAAATCCCGGATACTGCTC 480
 110 D A F L V T P K E V V C T T C T Q N T P T V K K S R D T A
 TCAAGAAATTAGAAATTAGTTCTCTCACCAGATTCCTTTAAGTACCATAATGATGGGATGATATGGATGACTTTGATACT 560
 135 L K K L E F S S S P D S L S T I N D W D D M D D F D T
 TCTGAGACTTCAAAATCATTGTGTACACCACCCCAAGTCACTTTGTAAAGTAAGCACTGCTCAGAAATCAAAAAAGG 640
 163 S E T S K S F V T P P Q S H F V R V S T A Q K S K K G
 TAAGAGAAATCTTTTAAAGCACAGCTTTATACAACAAACACAGTAAAGACTGATTTCCTCCACCCCTCTCTGAAAGCG 720
 190 K R N F F K A Q L Y T T N T V K T D L P P P S S S S
 AGCAATAGATTGACTGAGGAACAGAAGGATGACTCAGAAATGGTTAAGCAGCGATGTGATTTCGATCGATGATGGCCCC 800
 216 E Q I D L T E E Q K D D S E W L S S D V I C I D D G P
 ATTGCTGAAGTGCATATAAATGAAGATGCTCAGGAAAGTACTCTCTGAAAACCTCATTGGAAGATGAAAGAGATAATAG 880
 243 I A E V I N E D A Q E S D S L K T H L E D E R D N S
 CGAAAAGTGAAGAATTTCGAAGAAGCTGAATTACACTTCACTGAGAAAGTTCCATGTATTGAATTTGATGATGATT 960
 270 E K K K N L E E A E L H S T E K V P C I E F D D D D
 ATGATACGGATTTTGTTCCACCTTCTCCAGAAGAAATTATTTCTGCTTCTTCTCTCTCAAAATGCCTTAGTACGTTA 1040
 296 Y D T D F V P P S P E E I I S A S S S S S S K C L S T L
 AAGACCTTGACACATCTGACAGAAAAGAGGATGTTCTTAGCACATCAAAAGATCTTTTGTCAAAACCTGAGAAAATGAG 1120
 323 K D L D T S D R K E D V L S T S K D L L S K P E K M S
 TATGCAGGAGCTGAATCCAGAAACCAGCACAGACTGTGACGCTAGACAGATAAGTTTACAGCAGCAGCTTATTCATGTGA 1200
 350 M Q E L N P E T S T D C D A R Q I S L Q Q Q L I H V
 TGGAGCACATCTGTAAATTAATTGATACTATTCTGTATGATAAAAGTCAAACTTTTGGATTGTGGGAACGAAGTGCCTCAG 1280
 376 M E H I C K I D T I P D D K L K L L D C G N E L L Q
 CAGCGGAACATAAGAAGGAAACTTCTAACGGAAGTAGATTTTAATAAAAGTAGTGCCAGTCTTCTTGGCTCATTTGTGGAG 1360
 403 Q R N I R R K L L T E V D F N K S D A S L L G S L W R
 ATACAGGCCTGATTCACTTGTATGGCCCTATGGAGGGTGAATCTCTGCCCTACAGGGAATCTATGAAGGAGTTAAATTTT 1440
 430 Y R P D S L D G P M E G D S C P T G N S M K E L N F
 CACACCTTCCCTCAAATCTGTCTCTCTGGGACTGTTTACTGACTACCACCTAGGAAAGACAGGATTCTCTGCCACC 1520
 456 S H L P S N S V S P G D C L L T T T L G K T G F S A T
 AGGAAGAATCTTTTGAAGGGCTTTATTCAATACCCATTTACAGAAGTCCTTTGTAAAGTAGCAACTGGGCTGAAACACC 1600
 483 R K N L F E R P L F N T H L Q K S F V S S N W A E T P
 AAGACTAGGAAAAAATGAAGCTCTTATTTCCAGGAAATGTTCTCACAAGCACTGCTGTGAAAGATCAGAATAAAC 1680
 510 R L G K S K Y F P G N V L T S T A V K D Q N K
 ATACTGCTTCAATAAATGACTTAGAAAGAGAAACCCCAAGTCTCTATGATATTGATAATTGACATAGATGACTTTGAT 1760
 536 H T A S I N D L E R E T Q P S Y D I D N F D I D D F D
 GATGATGATGACTGGGAGACATAATGCATAATTTAGCAGCCAGCAAATCTTCCACAGCTGCCTATCAACCCATCAAGGA 1840
 563 D D D D W E D I M H N L A A S K S S T A A Y Q P I R E
 AGGTCCGCCAATTAAATCAGTATCAGAAAGACTTTCTCAGCCAAGACAGACTGTCTTCCAGTGTCTACTGCTCAAA 1920
 590 G R P I R S V S E R L S S A K T D C L P V S S T A Q
 ATATAAACTTCTCAGAGTCAATTCAGAATTATACTGACAAGTCAGCACAAAATTTAGCATCCAGAAATCTGAAACATGAG 2000
 616 N I N F S E S I Q N Y T D K S A Q N L A S R N L K H E
 CGTTTCCAAAGTCTTAGTTTCTCTCATACAAAGGAATGATGAAGATTTTTCATAAAAAATTTGGCCTGCATAATTTTAG 2080
 643 R F Q S L S F P H T K E M M K I F H K K F G L H N F R
 AACTAATCTCTAGAGCGGATCAATGCTGCACTGCTTGGTGAAGACTGTTTATCTCTGATGCCGACTGGAGGTGGTAAGA 2160
 670 T N Q L E A I N A A L L G E D C F I L M P T G G G K
 GTTTGTGTTTACCAGCTCCCTGCTGTGTTCTCTGGGGTCACTGTTGTCTCTCTCTGAGATCACTTATCGTAGAT 2240
 696 S L C Y Q L P A C V S P G V T V V I S P L R S L I V D
 CAAGTCCAAAGCTGACTTCTTGGATATTCCAGCTACATATCTGTCAGGTGATAAGACTGACTCAGAAGCTACAAATAT 2320
 723 Q V Q K L T S L Q I P A T Y L T G D K T D S E A T N I
 TTACCTCCAGTTATCAAAAAAGACCAATCATAAACTTCTATATGTCACCTCCAGAAAAGATCTGTGCAAGTAACAGAC 2400
 750 Y L Q L S K R D P I I K L L Y V T P E K I C A S N R
 TCATTCTACTCTGAGAAATCTCTATGAGAGGAAGCTCTTGGCAGCTTTTGTATTGATGAAGCACATTGTGTCACTCAG 2480
 776 L I S T L E N L Y E R K L L A R F V I D E A H C V S Q

09753443.010601

FIGURE 2 (cont'd)

TGGGACATGATTTTCGTCAAGATTACAAAAGATGAATATGCTTCGCCAGAAGTTTCCTCTGTTCGGTGATGGCTCT 2560
 803 W G H D F R Q D Y K R M N M L R Q K F P S V P V M A L
 TACGGCCACAGCTAATCCCAGGGTACAGAAGGACCTCTGACTCAGCTGAAGATTCTCAGACCTCAGGTGTTTAGCATGA 2640
 830 T A T A N P R V Q K D I L T Q L K I L R P Q V F S M
 GCTTTAACAGACATAATCTGAAATACTATGTATTACCGAAAAAGCCTAAAAAGGTGGCATTGATTGCCTAGAAATGGATC 2720
 856 S F N R H N L K Y Y V L P K K P K K V A F D C L E W I
 AGAAAGCACCACCATATGATTCAGGGATAATTTACTGCTCTCCAGGCGAGAATGTGACACCATGGCTGACACGTTACA 2800
 883 R K H H P Y D S G I I Y C L S R R E C D T M A D T L Q
 GAGAGATGGGCTCGCTGCTCTTGCTTACCATGCTGGGCTCAGTGATTCTGCCAGAGATGAAGTGACGAGAGAAGTGCGATTA 2880
 910 R D G L A A L A Y H A G L S D S A R D E V Q Q K W I
 ATCAGGATGGCTGTGAGGTTATCTGTGCTACAATTGCATTTGGAATGGGGATTGACAAACCGGACGTCGGATTGTGATT 2960
 936 N Q D G C Q V I C A T I A F G M G I D K P D V R F V I
 CATGCATCTCTCCCTAAATCTGTGGAGGGTTACTACCAAGAATCTGGCAGAGCTGGAAGAGATGGGGAATATCTCACTG 3040
 963 H A S L P K S V E G Y Y Q E S G R A G R D G E I S H C
 CCTGCTTTTCTATACCTATCATGATGTGACCAGACTGAAAAGACTTATAATGATGAAAAAGATGGAACCATCATACAA 3120
 990 L L F Y T Y H D V T R L K R L I M M E K D G N H H T
 GAGAAACTCACTTCAATAATTTGTATAGCATGGTACTACTGTGAAAAATATAACGAATGCAGGAGAATACAGCTTTTG 3200
 1016 R E T H F N L Y S M V H Y C E N I T E C R R I Q L L
 GCCTACTTTGGTGAAAATGGATTAACTCTGATTTTCTGAAGAAACACCCAGATGTTTCTTGTGATAATTGCTGTAAAAC 3280
 1043 A Y F G E N G F N P D F C K K H P D V S C D N C C K T
 AAAGGATTATAAAACAAGAGATGTGACTGACGATGTGAAAAGTATTGTAAGATTGTTCAAGAACATAGTTTCATCACAAG 3360
 1070 K D Y K T R D V T D D V K S I V R F V Q E H S S S Q
 GAATGAGAAATATAAAACATGTAGGTCTCTTCTGGAAGATTACTATGAATATGCTGGTTCGACATTTTCTTGGGGAGTAAG 3440
 1096 G M R N I K H V G P S G R F T M N M L V D I F L G S K
 AGTGCAAAATCCAGTCAGGTATATTGGAAGAGATCTGCTTATTACGACACAAATGCCGAAAGACTTTTAAAAAGCT 3520
 1123 S A K I Q S G I F G K G S A Y S R H N A E R L F K K L
 GAATCTTGACAAGATTTTGGATGAAGACTTATATATCAATGCCAATGCCAGGCGATCGCTTATGTGATGCTCGGAAATA 3600
 1150 I L D K I L D E D L Y I N A N D Q A I A Y V M L G N
 AMXCAAATGTACTAAATGGCAATTTAAAGTAGACTTTATGGAACAGAAAATTCAGCAGTGTGAAAAACAAAAA 3680
 1176 K A Q T V L N G N L K V D F M E T E N S S S V K K Q K
 GCTTAGTAGCAAAAGTGTCTCAGAGGGAAGAGATGGTTAAAAAATGTCTTGGAGAACTTACAGAAGTCTGCAAAATCTCT 3760
 1203 A L V A K V S Q R E E M V K K C L G E L T E V C K S L
 GGGGAAAGTTTTTGGTGTCCATTACTTCAATATTTTTAATACCGTCACTCTCAAGAAGCTTGCAGAATCTTTATCTTCTG 3840
 1230 G K V F G V H Y F N I F N T V T L K K L A E S L S S
 ATCCTGAGGTTTTGCTTCAATTTGATGGTGTACTGAAGACAACTGGAATAATATGGTGGGGAAGTGATTTCAGTATTA 3920
 1256 D P E V L L Q I D G V T E D K L E K Y G A E V I S V L
 CAGAAATCTCTGAATGGACATCGCCAGCTGAAGACAGTTCCCCAGGGATAAGCCTGTCCAGCAGCAGAGGCCCCCGAAG 4000
 1283 Q K Y S E W T S P A E D S S P G I S L S S S R G P G R
 AAGTGCCGCTGAGGAGCTTGACGAGGAAATACCGTATCTTCCCACTACTTTGCAAGTAAAACAGAAATGAAAGGAAGA 4080
 1310 S A A E E L D E I P V S S H Y F A S K T R N E R K
 GGAAAAAGATGCCAGCCTCCCAAAGGTCTAAGAGGAGAAAAACTGCTTCCAGTGGTTCCAAGGCAAAGGGGGGTCTGCC 4160
 1336 R K K M P A S Q R S K R R K T A S S G S K A K G G S A
 ACATGTAGAAAGATATCTTCCAAAACGAAATCTCCAGCATCATGGATCCAGTTCAGCCTCACATACTTCTCAAGCGAC 4240
 1363 T C R K I S S K T K S S S I I G S S S A S H T S Q A T
 ATCAGGAGCCAATAGCAAAATGGGGATTATGGCTCCACGAAGCCTATAAATAGACCGTTCTTAAGCCTTCATATGCAT 4320
 1390 S G A N S K L G I M A P P K P I N R P P L K P S Y A
 TCTCATAAcaaccgaatctcaatgtacatagaccctctttcttctgttgcagcatctgaccatctgtgacataaagctg 4400
 1416 F S
 ttattcttcttataccaaaaaaaaaaaaaaaaaaaaaa 4437

FIGURE 3

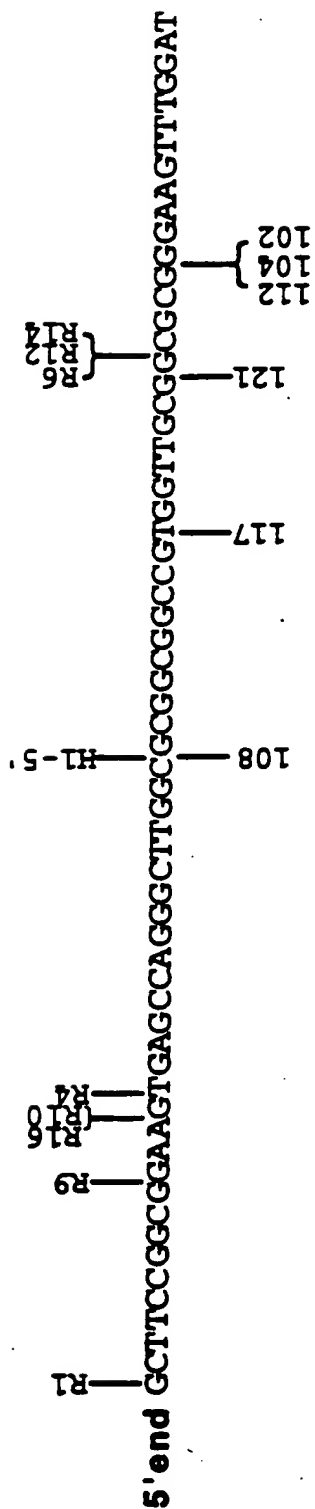


FIGURE 4

I

Ia

649 FEHTKEMKIFKKEGHNFTNQMMAALGEDFIEMPTGGGKSLCYOLEKCH---TVVHSPLRSGLVDQV BLM
 74 FPWSGKVKDITONVEKLEKFRLOLEETINVTHAGKEVFLVMPGTGGGKSLCYOLPAC---LAFITLVICPLISLMEDQL REQ
 659 YPWSDEVLYRLHEVEKLPGERPAQLEAVNATLOGKDVFLVMPGTGGGKSLCYOLEPAVKSCKTHGTITIVISPLISLMODQV SGS1
 16 -----VLDRTGAYQOEKPGSEEIEDTVSGRDLVMPGTGGGKSLCYOIPALL-----LNGLDQVSPISLMKDOV recQ

II

725 OKLTSIDIPATYETGDKYDSEATNIYLQLSKEDPIKLLYVTEPEKICASNRIISTEENLYERKLARFIIDEAHCVSOWG BLM
 150 MVEKQLGISATMLNASSSSKEHVKNWHDENVKNSLEKITYVTPEKIAKSKFMSEKAYEARFRTRIAVDEVHCCSOWG REQ
 739 EHLNNTIKKSMFSSRGTAQORROTFFNLFIN--ELNDEVYSEPMISASEQCKRAISRLYPDGKCARIVDEAHCVSNNG SGS1
 83 DOHQANGVAACINSTOEREQOLEVMT--GCRTGCHRIDYAPERL---EDNFTIRH--SHWNPVLLAVDEAHCVSOWG recQ

III

805 HDERQDYKRMNMLKOKFESVFAALTATANPRYOKDILTOLKLRPOVSMSPENHNRKYVPPKPKKVA---YDCLEW BLM
 230 HDEREDYKALGLIKROFPNASLEGITATATNHULTDAQKIECERCFTEASENRPNL--YEVROKPSNTEDFIEDIVKL REQ
 817 HDEREDYKELKFFKREYEDIEMLALTATASEQRMOTIHNLLEKEEVFLKQSENRTNL--YEVNKTQNT---IFEICDA SGS1
 157 HDERREYALGQLEQREPTLEFALTATADDTTEQDEVRLQGNDELIQISSDEPNIRY--MMEKFKPLDQLM---RY recQ

IV

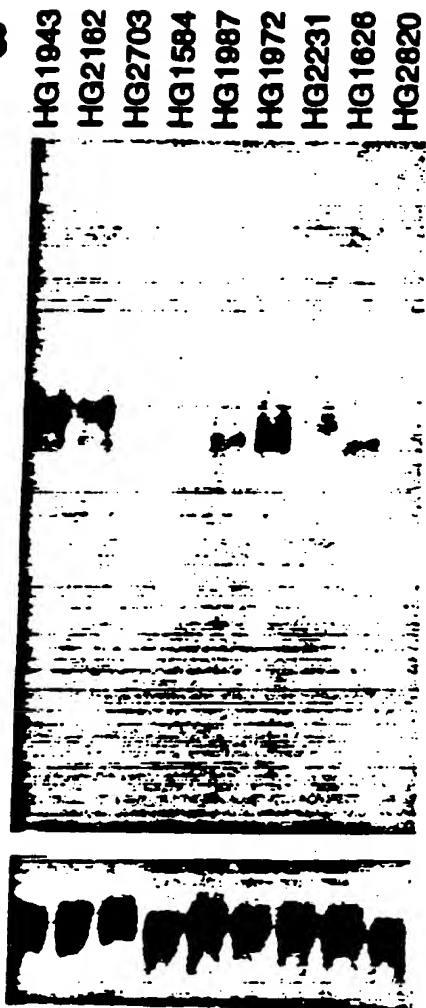
882 BRKHHPYDSGTTIYCLSRREGDTMADTLQEDGLAALAYHAGLSDSARDEVQOKWINQGGCOVQATIAFGMGIDKPDVRFV BLM
 309 ENGRYKQSGIITYCFSQDSEQVTVSLQNLGTHAGAYHANLEPEDKTTVHRKWSANE--LQVVVATVAFGMGIDKPDVREV REQ
 893 AKSRFKNGTGLIYCHSKKSCPTSAQMQRNGEKCAYYHAGMEPPERLSVOKANQADE--LQVTEATVAFGMGIDKPDVREV SGS1
 233 VQEQ--RGKSGIITYCNSAKVEDTAAALQSKGISAAAYHAGLENNVRADYQKFRDD--LQVVVATVAFGMGINKPNVRFV recQ

V

962 IHAFLPKSVEGYQESGRAGRGEIHCLEFYTYHDVTRLKQLIMMEKDCNHHTRETHFANLYSMVHYCENTITECRRIQL BLM
 388 IHHMSKSMENYYQESGRAGRDDMKADCLIFGEGDIFRISSMVMENVGQO-----KLYEMVSYQONISKSRRLV REQ
 972 YHFTVPEITLEGYYQESGRAGRDGNYFYCITEFSEDRITMOTMIQDKNDRENKCHLNKLOQVMAYCDNVTDCKRKGV SGS1
 311 VHEDIENIESKYQESGRAGRDGLPAEAMGEYDPADMAWLRRCLEEKPOLODIERH--KINAMGAFAEAQT--CRRLVL recQ

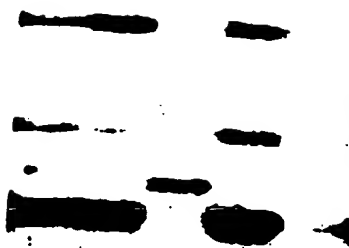
VI

753143.010201



FIGURES 6A - 6E

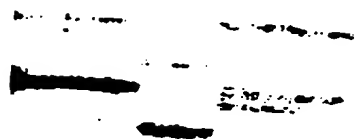
a



b



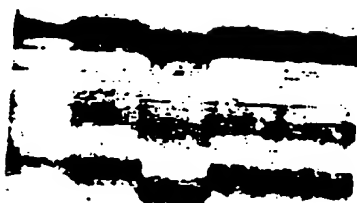
c



d



e



09753143-010201